CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of Work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Name of Agency	M/s. K. R. I. D. L.
Grade of Concrete	M-15
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	CC-Work (Kerb Stone)	150.01 X 150.02 X 150.0	22505	22/12/2015	19/01/2016	28	8.20	348	**15.47**	**15.61**
2		150.03 X 150.04 X 150.0	22511				8.19	352	**15.64**	
3		150.04 X 150.05 X 150.0	22514				8.21	354	**15.73**	

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CIVIL TECH LABS BANGALORE

(BASAVARAJ K.)
Executive Director

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of Work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Name of Agency	M/s. K. R. I. D. L.
Grade of Concrete	M-20
No. of cubes tested	3
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	ID	Dimension of specimen (mm)	Cross sectional area (mm^2)	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	CC Work	150.12 X 150.09 X 150.0	22532	22/12/2015	19/01/2016	28	8.22	505	**22.44**	**22.22**
2		150.13 X 150.11 X 150.0	22536				8.20	500	**22.22**	
3		150.15 X 150.14 X 150.0	22544				8.19	495	**22.00**	

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TEST REPORT

TEST ON CEMENT

Name & Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of Work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Name of the Agency	M/s. K. R. I. D. L.
Date of Testing	03/06/2015

Tests	**Test Method As Per IS & Apparatus**		**Results**		**Requirements As Per IS 8112:1989**	**Remarks**
	IS Code	**Method**	**Value**	**Unit**		
Initial Setting Time	**IS-4031 (Part-5) 1988**	VICAT	52	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	**IS-4031 (Part-5) 1988**	VICAT	486	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	**IS-4031 (Part-3) 1988**	LE-CHATELIER	4	mm	Not More Than 10 mm	Satisfies Requirement

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TEST REPORT

GRADATION TEST ON FINE AGGREGATES

Name & Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of Work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Name of Agency	M/s. K. R. I. D. L.
Date of Testing	03/06/2015
Specific Gravity	**2.58**
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011), IS : 2386 (Part III)–1963 (Reaffirmed 2011)

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970 (Reaffirmed 2011)				Grading Zone	Remarks
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV		
River Sand	10	**100**	100	100	100	100	II	Satisfies the requirement
	4.75	**98.7**	90-100	90-100	90-100	95-100		
	2.36	**85.6**	60-95	75-100	85-100	95-100		
	1.18	**74.2**	30-70	55-90	75-100	90-100		
	0.6	**45.8**	15-34	35-59	60-79	80-100		
	0.3	**24.6**	5-20	8-30	12-40	15-50		
	0.15	**8.7**	0-10	0-10	0-10	0-15		

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TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 40mm ↓ Graded

Name & Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of Work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Name of Agency	M/s. K. R. I. D. L.
Date of Testing	03/06/2015
Specific Gravity	**2.68**
Water Absorption	**0.28%**
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011), IS : 2386 (Part III)–1963 (Reaffirmed 2011)

IS Sieve Designation (mm)	**Sieve Analysis (% Passing IS Sieve)**	**Grading Requirement as per IS:383-1970 (Reaffirmed 2011)**	**Remarks**
80	**100**	100	**Satisfies the requirement**
40	**97.6**	95-100	
20	**54.2**	30-70	
10	**28.6**	10-35	
4.75	**4.1**	0-5	

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TEST REPORT

GRADATION TEST ON COARSE AGGREGATES 20mm ↓ Graded

Name & Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of Work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Name of Agency	M/s. K. R. I. D. L.
Date of Testing	03/06/2015
Specific Gravity	**2.63**
Water Absorption	**0.31%**
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011), IS : 2386 (Part III)–1963 (Reaffirmed 2011)

IS Sieve Designation (mm)	**Sieve Analysis (% Passing IS Sieve)**	**Grading Requirement as per IS:383-1970 (Reaffirmed 2011)**	**Remarks**
40	**100**	100	**Satisfies the requirement**
20	**98.9**	95-100	
10	**44.2**	25-55	
4.75	**7.6**	0-10	

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TEST REPORT

TEST ON CEMENT CONCRETE PAVER BLOCKS

Name & Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Name of the Agency	M/s. K. R. I. D. L.
Grade of Concrete	M-35
No. of Paver Blocks tested	8
Technical Reference	IS: 15658 : 2006

Compressive Strength

Sl.No	Date of Testing	Paver Block Type	Block Thickness in mm	Plan Area in mm²	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	03/06/2015	I type design	60.3	45628	1650	**36.16**	**37.07**
2			60.2	45622	1660	**36.39**	
3			60.1	45567	1710	**37.53**	
4			60.2	45588	1700	**37.29**	
5			60.3	45568	1720	**37.75**	
6			60.4	45572	1680	**36.86**	
7			60.3	45586	1690	**37.07**	
8			60.2	45589	1710	**37.51**	

Water Absorption

Sl.No	Date of Testing	Water Absobtion (% by weight)	Average (% by Wt.)	Requirements as per IS: 15658 : 2006
1	03/06/2015	5.4	5.40	When three units are tested the average water absorption shall not be more than 6% by mass and in individual samples, the water absorption should be restricted to 7 percent.
2		5.5		
3		5.3		

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TEST REPORT

GAUGE TEST ON M.S.PIPE Nominal Size 38mm

Name & Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of Work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Name of the Agency	M/s. K. R. I. D. L.
Date of Testing	03/06/2015

Gauge Test

Nominal Size in mm	Guage	Measured Thickness in mm	Min. As Per IS : 1136-2008 in mm	Remarks
38	**14**	1.99	**1.99**	**Satisfies The Requirement**

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TEST REPORT

TEST ON MS FLAT 40mm x 6mm

Name and Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of Work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Agency Name	M/s. K. R. I. D. L.
Date of Testing	03/06/2015

Sl.No.	Description	IS 2062-1999 & IS 1730-1989 Min. Requirements	Result	Remarks
1	Weight in Kg/mt	1.88	1.89	Satisfactory
2	Bend Test	No Cracks or Fractures	PASS	Satisfactory
3	Elongation (%)	23	24	Satisfactory
4	U T S (N/Sq.mm)	410	418	Satisfactory

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TEST REPORT

TESTS ON SOLID BLOCKS

Name & Address of the Customer	AEE, Project Sub Division Yelahanka Zone , BBMP
Name of Work	Improvements to park at Lakkappa layout near Singapura Village in ward no. 11.
Name of the Agency	M/s. K. R. I. D. L.
Date of Testing	03/06/2015
Technical Reference	IS: 2185(Part-I)-2005 (Reaffirmed 2010)
No. of samples tested	8
Grade	C (4.0)

1. COMPRESSIVE STRENGTH

Sl. No.	Nominal Dimension (cms)	Compressive strength (N/mm^2)	Minimum Compressive Strength as per IS: 2185(Part-I)-2005 (Reaffirmed 2010)	
			Individual	Avg. of 8 samples
1	40x20x20	4.3	Minimum Compressive Strength of Individual Units	Minimum Average Compressive Strength of Units
2		4.4		
3		4.5	For Grade C (5.0)- 4.0 N/mm^2 For Grade C (4.0)- 3.2 N/mm^2	For Grade C (5.0)- 5.0 N/mm^2 For Grade C (4.0)- 4.0 N/mm^2
4		4.6		
5		4.5		
6		4.7		
7		4.6		
8		4.5		
Average Compressive strength (N/mm^2)		**4.5**		

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2. WATER ABSORPTION

Sl. No.	Nominal Dimension (cms)	Water Absorption (% by weight)	Average (% by weight)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2010)
1	40x20x20	7.44	**7.46**	When three samples are tested the average water absorption shall not be more than 10% by mass
2		7.48		
3		7.46		

3. BLOCK DENSITY

Sl. No.	Nominal Dimension (cms)	Block Density (Kg/cum)	Average (Kg/cum)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2010)
1	40x20x20	1866.3	**1867.7**	The Solid Concrete blocks used as load bearing units shall have average block density not less than 1800Kg/m^3
2		1867.9		
3		1869.0		

Remarks	Satisfies the Requirements.

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